



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,132	09/07/2001	Yves Chevallier	213512US0XPCT	7805

22850 7590 04/02/2004

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
----------	--------------

1733

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

09/926,132

Applicant(s)

CHEVALLIER ET AL.

Examiner

Barbara J. Musser

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2004.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-16 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 4-16 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The references on the European search report have been considered but have not been made of record as no PTO 1449 listing the references has been sent.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose coating one side of the second adhesive layer with a silicone based adhesive. Rather from the specification it can be seen that the intermediate sheet and the second adhesive can comprise an adhesive film made by coating the second adhesive layer on the intermediate sheet.(Pg. 6, ll. 27-31) The KAPTON of the specification is not an adhesive layer combined with the intermediate sheet but rather is the intermediate sheet itself.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1733

5. Claims 4-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, it is unclear what is meant by "the second adhesive is coated on one side with a silicone based bonding agent." This suggests the adhesive layer is itself multi-layer which is not what is disclosed in the specification. From a reading of the specification it is assumed applicant intended to indicate the second adhesive is a silicone based bonding agent.

Regarding claims 5 and 6, it is unclear what direction is meant by width as applicant has not defined the face from which it is measured. While the claim indicates the width is parallel to the final part, the final part has multiple faces. The claim does not indicate the width is measured parallel to the face of the adhesive stack.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Parker, Clark, and Waldenberger.

The first process of the admitted prior art discloses pre-molding a silicone resin part, applying a silicone adhesive layer to a substrate and then applying the silicone

resin part to the adhesive.(Pg. 1) While the first admitted prior art process does not disclose the silicone resin part is injection molded, the second process of the admitted prior art discloses the silicone resin part is injection molded. It would have been obvious to one of ordinary skill in the art at the time the invention was made to injection mold the pre-molded silicone resin part since the first admitted prior art process discloses it is molded, since injection molding is a conventional molding process, and since the second process of the admitted prior art discloses that it is known to injection mold silicone resin parts. Such a mold would have at least two parts to enable the part to be removed from the mold.

The admitted prior art does not disclose injection molding the silicone resin part against the adhesive layer. Parker discloses that in injection molding in general mold release agents are used which can cause poor adhesion of subsequently applied materials to the injection molded part and that it is known to have molded parts with preformed adhesive layers(Col. 1, ll. 11-25). As a solution, the reference applies a laminate to the mold surface comprising a low strength adhesive to hold the laminate in place, a release sheet, a high strength adhesive, and a barrier layer.(Abstract) It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a laminate of a low strength adhesive, a release sheet, and a high strength adhesive to the interior of the mold of the admitted prior art since this would prevent mold release agents on the mold from contaminating the surface of the silicone resin causing poor adhesion of the silicone resin when it is joined to the substrate.(Col. 1, ll. 11-25)

The references do not disclose the laminate containing a silicone adhesive layer, a substrate and a non-silicone adhesive layer between the barrier layer and the release layer. Clark discloses it is difficult to bond materials to silicone containing surfaces and that a way to fix the problem is to bond a silicone adhesive to the silicone surface and then apply a non-silicone adhesive to the silicone adhesive.(Col. 1, ll. 5-10, Abstract) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a non-silicone adhesive in combination with a silicone one to allow better bonding of materials to silicone surfaces.(Col. 1, ll. 5-10) While the reference suggests bonding the adhesives, the method of the reference cannot be used as it is applying the adhesive to a preformed object. Double-sided adhesive tapes with different adhesives on different sides are known per se in the bonding arts. Waldenberger discloses an adhesive tape with a silicone compound on one side and a different adhesive on the other.(Col. 1, ll. 66- Col. 2, ll. 3; Col. 2, ll. 49-51) It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the adhesive of the admitted prior art and Parker with the double-sided tape of Waldenberger since Clark discloses it is difficult to bond materials to silicone objects and that non-silicone adhesive applied to the object allows easy usage by the consumer(Col. 1, ll. 21-24) and since double-sided tapes with silicone adhesive on one side are known in the bonding arts for attaching items having low surface energy such as silicone resin to items with higher surface energy.(Abstract)

Regarding claims 5 and 6, the admitted prior art does not disclose the size of the injection mold parts. However, the size of the mold halves is dependent on the article

being formed and its shape. One in the art would appreciate that the molds could be made to any size depending on the area the adhesive is intended to cover in the molded part.

Regarding claims 7 and 8, one in the art would understand that the mold should be made from materials which will not react with the article being formed. Such materials are well-known to the ordinary artisan and would be within the purview of one in the art.

Regarding claim 9, Parker discloses the layers of the laminate should be the same size. Therefore they would completely cover each other.

Regarding claim 10, Parker discloses using a low strength adhesive to bond the laminate to the mold wall.(Figure 2)

Regarding claim 12, Parker discloses removing the release layer to expose the adhesive allowing the part to be bonded.(Col. 2, ll. 47-51)

Regarding claims 14-16, the admitted prior art discloses the silicone part can be used as a seal, blocking joint, or damper.(Pg. 1, ll. 14-15)

Response to Arguments

8. Applicant's arguments filed 1/02/04 have been fully considered but they are not persuasive.

9. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, injection molding is generally known in the art and it is known to injection mold silicone resin as shown by the second process of the admitted prior art. Parker discloses that in injection molding in general mold release agents are used which can cause poor adhesion of subsequently applied materials to the injection molded part and that it is known to have molded parts with preformed adhesive layers (Col. 1, ll. 11-25). The reference discloses a method of applying an adhesive layer to an injection molded part without the problem of the mold release agents conventionally used in injection molding preventing adhesion of the adhesive layer to the part. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the adhesive layer to the silicone part by applying it in the mold as shown by Parker since this would prevent mold release agents on the mold from contaminating the surface of the silicone resin causing poor adhesion of the silicone resin when it is joined to the substrate. (Col. 1, ll. 11-25) Clark discloses it is best to use a non-silicone adhesive in combination with a silicone one as the adhesive layer used in Parker in the method of the admitted prior art to allow better bonding of materials to silicone surfaces. (Col. 1, ll. 5-10) While the reference suggests bonding the adhesives, the method of the reference cannot be used as it is applying the adhesive to a preformed object. Double-sided adhesive tapes with different adhesives on different sides are known per se in the bonding arts as shown for

example by Waldenberger which discloses an adhesive tape with a silicone compound on one side and a different adhesive on the other.(Col. 1, ll. 66- Col. 2, ll. 3; Col. 2, ll. 49-51) It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the adhesive of the admitted prior art and Parker with the double-sided tape of Waldenberger since Clark discloses it is difficult to bond materials to silicone objects and that non-silicone adhesive applied to the object allows easy usage by the consumer(Col. 1, ll. 21-24) and since double-sided tapes with silicone adhesive on one side are known in the bonding arts.

10. In response to applicant's argument that Clark, Parker, and Waldenberger are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Clark is pertinent to the problem applicant is concerned with, namely bonding silicone containing items to non-silicone containing items using silicone based adhesives. Parker is in applicant's general field of endeavor in that it is directed to forming items having adhesive layers using injection molding. Waldenberger is in applicant's general field of endeavor in that it is directed to methods of bonding silicon resin containing materials to non-silicone resin containing materials.

Applicant has made a statement that it is time-consuming to cure silicone resins in the presence of silicone adhesives. However, applicant has not presented any evidence to that effect or shown any unexpected results.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Barbara J. Musser** whose telephone number is **(571) 272-1222**. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJM

BJM

Jeff H. Aftergut
JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300